protected by overlying impermeable layers. Flow patterns indicate directions that contaminants may move within an aquifer. Potential yields of water from an aquifer indicate the size of the water supply that may result from full aquifer development, giving a measure of its potential value to the region.

At the state level, hydrogeologic data are used most frequently in permitting and siting decisions for individual facilities. Only in a few states has hydrogeology provided the basis for structuring a comprehensive management program. Connecticut has mapped its stratified drift deposits where there is good potential for water supply development and structured its classification system based on ground water basin mapping. Vermont and New York State have mapped valley fill aquifers in connection with their state planning programs, primarily for the purpose of defining potential water supply aquifers. Florida utilizes hydrogeologic data on a regional scale by distinguishing between confined and unconfined aquifers in its classification system, although the aquifers are so large and vertically arranged that the system provides more guidance on injection well disposal than land use or siting.

California has mapped its ground water basins in connection with its basin planning program, for the purpose of establishing beneficial uses and ambient water quality standards. Although differential classifications based on beneficial use are possible, as a practical matter, virtually all the basins are designated municipal drinking water supplies.

Local programs have made far more extensive use of hydrogeologic data than have state programs. Long Island, New York, is perhaps the best example of the effective integration of hydrologic information into a ground water management program. Regional flow and interaquifer connection form the basis for the hydrogeologic zoning plan developed for Nassau and Suffolk counties, Long Island, through a Section 208 planning grant under the Clean Water Act. This information has been used to determine those aquifer recharge areas where a potential source of pollution must be most carefully controlled. A host of local land use controls, county-level ordinances, state laws, and regulatory programs is coordinated on the basis of this single integrated approach.

Local programs in several locations have used hydrogeologic data to define zones of influence for public supply wells as the basis for land use zoning. The Cape Cod Planning and Economic Development Commission has calculated areal zones of contribution for existing and planned future public supply wells. Local communities have used this information for development of zoning overlay protection by-laws. In Florida's Dade and Broward Bounties, data on zones of influence provide information on public supply wellfields in the Biscayne aquifer. County and local ordinances have been